

NO	DATE	MADE BY	DESCRIPTION OF REVISIONS
1	2010 EDITION	C. COLE	
2	REVISED NOTE #11	L. LOPEZ	
NO	DATE	MADE BY	DESCRIPTION OF REVISIONS
3	03/10	C. COLE	
4	12/12	L. LOPEZ	

TYPE II & IV LOAD CENTER REQUIREMENTS

NOTES:

1. The load center cabinet shall be a free-standing and self-supporting National Electric Manufacturers Association (NEMA) Standard 250, "Enclosure for Electrical / Equipment (1000 Volt Maximum)" or Underwriters Laboratories Standard UL50 " Enclosures for Electrical Equipment." NEMA 3, 3R or 4 rated load center cabinet Type II or Type IV, per the project plans details. The cabinet and doors shall be made of 5052-H32 sheet aluminum alloy, thickness 0.125 inch.
2. Use heliarc welding method for all external and internal continuous welds. Welds shall be free of cracks, blow holes and other irregularities. The inside and outside edges of cabinet shall be free of burrs and provide a smooth, uniform and natural aluminum finish.
3. Bolt-on circuit breakers shall be used.
4. The cabinet door openings shall be double-flanged on all (4) four sides to increase strength around the openings and to prevent any liquid or dirt from entering the enclosure when the door is opened.
5. Gasketing shall be provided on all door panels to provide a weather tight seal that conforms to the applicable requirements of UL 508 Table 21.2, or equivalent independent lab test method.
6. 300 series stainless steel 1/4-20 carriage bolts and 300 series stainless steel lock nuts shall be used to bolt hinges to the cabinet and the door.
7. The hinges shall be made of 075-14 gauges 300 series stainless steel. the hinge pins are to be welded at the top and bottom to render them tamper-proof.
8. Bolt holes shall be gasketed in manner which meet or exceed the requirement of the cabinets NEMA and UL or other independent lab rating.
9. See the Specifications for additional construction and material requirements.
10. See T.S. 3-9 for minimum 2-position door stop details.
11. A 25 ft coil of #4 AWG bare copper conductor or 14" square copper ground plate shall be installed before the concrete is poured and connected to the clamp of the grounding rod. The ground or coil shall be covered with 6" of fill. Install two 5/8" Dia by 10 ft copper clad ground rods with approved clamp. The first ground rod is to be in the foundation, with the second at least 6 ft away on the outside. Add additional ground rods if the resistance of the grounding rods is not less than 25 ohms.
12. In unpaved areas a raised PCC pad 36" x 4" x width of foundation, shall be placed in front of the cabinet. See pad detail per applicable T.S. 2 series drawings.
13. Use an approved Silicon Sealer RTV Type Grey in color or Clear, to seal between cabinet and extension (if necessary) and cabinet and foundation and any other penetrations in the cabinet.
14. Provide at least a 36" x 36" permanent clear working space centered on the meter socket behind the load center cabinet. Coordinate with the serving electrical utility to verify this and other service requirements.
15. These notes apply to the type II and IV load center cabinets.
16. The contractor shall verify and coordinate the electrical service with serving utility. The electrical service shall be installed according to the utilities published requirements.
17. Once the lighting system has been tested all of the conduits entries into the load center cabinet shall be sealed with a pliable and removable duct seal that is formed around all conductors.

Enclosure Types on Exposure Ratings per NEMA 250/UL50			
Type of Rating	Locations of Use	Destinations	Degree of Protection Against
3	Outdoor	Weather-Proof/Raintight	Windblown, Dust, Rain, Sleet, Ice
3R	Outdoor	Weather-Proof/Raintight	Same as 3, but Excluding Dust
4	Outdoor	Weather-Proof/Raintight	Splashing and Hose directed water, Windblown, Dust, Ice

NOT TO SCALE

DESIGN APPROVED SIGNATURE	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION TRAFFIC SIGNALS AND LIGHTING STANDARD DRAWINGS	REVISION 12/12
APPROVED FOR DISTRIBUTION ON FILE	NOTES FOR TYPE II AND IV LOAD CENTER CABINETS	DRAWING NO. T.S. 3-0
		SHEET NO. 1 OF 1